PTO/SB/08A (08-03)

Approved (or use through 07/31/2006, OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

ton Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Complete It Known						
Application Number	10/646,994					
Filing Date	August 21, 2003					
First Named Inventor	Heinz Willebrand et al.					
Arl Unit	2638					
Examiner Name	Phan, Hanh					
Attorney Docket Number	81598 (7293)					

Sheet 1 of

U. S. PATENT DOCUMENTS Cite Name of Patentee or **Publication Date** Pages, Columns, Lines, Where Examiner Document Number Initials\* MM-DD-YYYY **Applicant of Cited Document** No. Relevant Passages or Relevant Figures Appear Number-Kind Code<sup>2</sup> (I known) <sup>US-</sup> 6,529,556 AA 03-04-2003 Perdue et al. HP <sup>US-</sup> 5,896,211 04-20-1999 HP AB Watanabe US- 6,009,115 12-28-1999 Нο AC US- 5,347,525 09-13-1994 AD Faris H<sup>US-</sup> 2001/0053011 A1 ΑE 12-20-2001 (Imajo Hf 02-04-1997 Hirohashi et al. AF US- 5,600,471 ΗІ 09-07-2004 US- 6.788.666 B1 Linebarger et al. AG US- 5,978,117 11-02-1999 AH Koonen Н <sup>US-</sup> 5,880,865 Lu et al. Al 03-09-1999 US- 5,457,561 10-10-1995 AJ Taneya et al. US- 5,016,242 AK 05-14-1991 Tang US-4,726,011 lh et al. 02-16-1988 AL US- 6,583,908 Nakamura 06-24-2003 НV AM US- 5,999,295 12-07-1999 Vowell AN us- 2002/0097468 Mecherle et al. AO 07-25-2002 US- 6,509,991 01-21-2003 Shibuya AP <sup>US-</sup> 6,889,009 AQ 05-03-2005 Willebrand <sup>US-</sup> 6,239,888 B1 05-29-2001 Willebrand AR US- 4.599.745 CG 07-08-1986 Baran et al.

		FORE	IGN PATENT DOCL	IMENTS		
Examiner Initials*	Cite No.	Foreign Patent Oocument	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
· .		Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>8</sup> (# known)	MM-DD-YYYY		Or Relevant Figures Appear	T⁵
Н	AS	EP 0 835 035 A1	04-08-1998	Alcatel Alsthom		
ਮੀ	AT	EP 0 876 020 A1	11-04-1998	Alcatel Alsthom		
HP	AU	EP 0 887 965 A1	12-30-1998	Alcatel Alsthom		
LIP .	AV	EP 0 993 124 A2	04-12-2000	Matsushita Electric Industriat		
HI	AW	JP 2000-147306	05-26-2000	Kokusai Electric		~
HP	AX	JP 2000-315983	11-14-2000	Hirohashi		V

Examiner Signature	Kanhyhan	Date Considered	11/10/05

\*EXAMINER: Initial if reference considered, whether or noticitation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Tradernark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Substitute for form 1449/P	r∩		Complete if Known			
	Substitute for form 1443/1			Application Number	10/646,994		
	INICODRATIO	ON DICC	OCUDE	Filing Date	August 21, 2003		
	INFORMATION			First Named Inventor	Heinz Willebrand et al.		
	STATEMENT	ΓBY APF	PLICANT	Art Unit	2638		
	(Use as man)	sheets as neces	sary)	Examiner Name	Phan, Hanh		
She	et 2	of	5	Attorney Docket Number	81598 (7293)		

Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials*	No.1	Number-Kind Code <sup>2</sup> (If known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
		US-			
****		US-			
		US-			
		US-			
·		US-			
		US-			

		FORE	IGN PATENT DOCL	IMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>8</sup> (# known)	MM-DD-YYYY		Or Relevant Figures Appear	T <sup>6</sup>
HP	AY	JP 2001-103545	04-13-2001	Sato		V
HP	AZ	WO 00/29886	05-25-2000	California Institute of Technology		
HP	BA	WO 01/26263 A2	04-12-2001	Kestrel Solutions, Inc.		
HP	BB	WO 01/86982 A1	11-15-2001	NTT Docomo, Inc		
HP	ВС	WO 01/35551 A1	05-17-2001	Buddatec Co., Ltd.		
H	BD	EP 1 250 018 A1	10-16-2002	NTT Docomo, Inc		

Examiner Signature	Marlphan	•	Date Considered	11/10/05	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Nind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitut	le for form 1449/PT	n			Complete if Known
00030101	10 10 10 11 1443/1 11			Application Number	10/646,994
INFO	ORMATIO	N DIS	CLOSURE	Filing Date	August 21, 2003
STA	TEMENT	<b>BY</b> Al	PPLICANT	First Named Inventor	Heinz Willebrand et al.
			,	Art Unit	2638
	(Use as many s	ineets as ne	cossary)	Examiner Name	Phan, Hanh
Sheet	3	of	5	Attorney Docket Number	81598 (7293)

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
HP	BE	Cai, M., et al., "5-Gbit's BER Performance on an All Fiber-Optic Add/Drop Device Based on a Taper Resonator-Taper Structure, "IEEE Photonics Technology Letters, Vol. 12, No. 9, pp.1177-9 (September 2000.)	
Hſ	BF	Cai, M., et al., "Observation of Critical Coupling in a Fiber Taper to a Silica-Microsphare Whispering-Gallery Mode System," Physical Review Letters, Vol. 85, No. 1, pp. 74-7 (July 3, 2000).	
H	BG	Cai, M., et al., "Fiber-coupled microsphere laser," Optics Letters, Vol. 25, No. 19, pp. 1430-1432 (October 1, 2000).	
H	вн	Cai, M., et at., "Fiber-Optic Add-Drop Device Based on a Silica Microsphere-Whispering Gallery Mode System," IEEE Photonics Technology Letters, Vol. 11, No. 6, pp. 686-7 (June 1999).	
HP	ВІ	Coppin, P. and T.G. Hodgkinson, "Novel Optical Frequency Comb Synthesis Using Optical Feedback," Electronics Letters, Vol. 26, No. 1, pp. 28-30 (January 4, 1990).	
H	ВЈ	Kitayama, K., "Highly-Stabilized Millimeter-Wave Generation by Using Fiber-Optic Frequency-Tunable Comb Generator," Journal of Lightwave Technology, Vol. 15, No. 5, pp. 883-93 (May 1997).	
HI	вк	Kitayama, K., "Highly-Stabilized, Tunable Millimeter-wave Generation by Using Fiber-optic Frequency Comb Generator," Microwave Photonics, pp. 13-16 (1996).	
Н	BL	Logan, Jr., R.T., "All-Optical Heterodyne RF Signal Generation Using a Mode-Locked-Laser Frequency Comb: Theory and Experiments," IEEE International Microwave Symposium Digest, Paper #TH4C-2, 4 pages (June 15, 2000).	
H	вм	Maleki, L., "Technical Support Package on Whispering-Gallery-Mode Microspheres as Light Modulators," Nasa Tech Brief, Vol. 24, No. 11, 10 pages (November 2000).	-
HP	BN	Novak, D., "Signal Generation Using Pulsed Semiconductor Lasers for Application in Millimeter-Wave Wireless Links," IEEE Transactions on Microwave Theory and Techniques, Vol. 43, No. 9, Part 2, pp. 2257-2262 (September 1995).	

 miner nature	Harlykan	Date Considered	11/10/05

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English tanguage Translation is attached.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is etached.

This collection of Information is required by 37 CFR 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. 80x 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTC/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
p.a.collection of information unless it contains a velid OMB contains.

	e for form 1449/PTO				Complete if Known
Substituti	8 IOI IOIIII 1443/F FO			Application Number	10/646,994
INFO	ORMATIO	N DIS	CLOSURE	Filing Date	August 21, 2003
STA	TEMENT	BY A	PPLICANT	First Named Inventor	Heinz Willebrand et al.
		<b>6 4</b>		Art Unit	2638
	(Use as many si	neets as n	eessary)	Examiner Name	Phan, Hanh
Sheet	4	of	5	Attorney Docket Number	81598 (7293)

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
HP	во	Otheru, S. and Noboru Takachlo, "Methodology of Unequally Spaced Frequency Allocation for WDM Transmission Systems Using Typical Dispersion Shifted Fiver Cable," IEICE Trans. Commun., Vol. E83-B, No. 6, pp. 1290-7 (June 2000).	
HP	BP	JDS Uniphase, Product Information for FBG1500-ADM Series - Fiber Bragg Circulated Fixed Add/Drop Modules and WDi515 A1/D1-100GHz Spaced ITU Channel Add/Drop WDM Couplers, 2 pages, http://www.jdsunph.com/HTML/catalog/prod.	
HP	BQ	Giganet Corp., Product Information for EtherAir 1500TM - 2x100Base-TX over OC-3/STM-1, 6 pages http://www.giganet-corp.com/1500100/html.	
HP	BR	Sicom Incorporated, Product Information for DVB Satellite Modulator Products, 1 page, http://www.sicom.com/sicom/products/html.	
HI	BS	Sicom Incorporated, Product Information for SM7060 Programmable Digital Modulator ASIC and MC2470 Modulator Circuit Card, 6 pages.	
HP	вт	Gould Fiber Optics, Product Information for Wavelength Division Multiplexers, 5 pages.	
H	вυ	Ceragon Networks, Product Information for FiveAir 3100 and FibeAir 6200, 4 pages.	
Hl	BV	ISC IASERsPEED Solutions, Product Information for SkyNetTM 500 Series -Quick Connectivity for 100 Mbps Fast Ethernet, 2 pages.	
HP	BW	Mohsen Kavehrad, A Coutermeasure to Improve Outage Performance of Interference-Limited Microwave Radio Links; January 1991, Canadian Electrical & Computer Engineering Journal, Vol. 16, No. 1, pp 13-18.	
HI	вх	Clark, Gerald et al., "Hybrid free space optical/microwave communication networks: a unique solution for ultra high speed local loop connectivity", LightPointe Communications, Inc., pp 46-54, November 2000.	

Examiner	26 00	Date	
Signature	Manliphan	Considered	11/10/05

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO				Complete if Known			
Substitute for first 170 in				Application Number	10/646,994		
INFORMATION DISCLOSURE				Filing Date	August 21, 2003		
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Heinz Willebrand et al.		
	// day an			Art Unit	2638		
(Use as many sheets as necessary)				Examiner Name	Phan, Hanh		
Sheet	5	of	5	Attorney Docket Number	81598 (7293)		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Cite Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), to the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-number(s), publisher, city and/or country where published.		T²	
HI	BY	LIGHTPOINTE COMMUNICATIONS INC., "LMDS Versus Free Space Optical Networks", www.lightpointe.com, Doc. No. 610-006514-H0001, February 21, 2001, pages I-III and 1-15 (18 pages).	
HP	BZ	R.A. MULLEN et al., "Wireless Optics Protection of Fiber via SONET Ring Closure", www.lightpointe.com, pp 1-10.	
HP	CA	CHINESE PATENT OFFICE, "The First Office Action", dated September 17, 2004, for corresponding application no. 00819317.7, with a copy of pending claims, 17 pages.	~
HP	СВ	AUSTRALIAN PATENT OFFICE, "Examiner's Report No. 2 on patent application no. 2001252868", dated February 25, 2005, for corresponding application no. 2001252868, with copy of pending claims, 11 pages.	
HP	CD	EUROPEAN PATENT OFFICE, "European Search Report", dated November 4, 2004, for EP application no. 03019647.1-2415, with copy of searched claims, 5 pages.	
H	CE	INDIAN PATENT OFFICE, "First Examination Report", dated June 27, 2005, for corresponding IN application no. IN/PCT/2002/01247/CHE, 2 pages.	
MP	CF	CHINESE PATENT OFFICE, "Notice on Grant of Patent Right for Invention", dated July 22, 2005, for corresponding application no. 00819317.7, 4 pages.	~
+			
-			

Examiner	Ma . Sylon	Date	11/16/15
Signature	, last free!	Considered	11/10/05

\*EXAMINER: Initial if reference considered, whether of not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Commissioner of the your register of the sound of the sou